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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/974,020	10/10/2001	Thomas Keith Blankenship	CR00260M	7308
22917	7590	03/28/2005	EXAMINER	
MOTOROLA, INC. 1303 EAST ALGONQUIN ROAD IL01/3RD SCHAUMBURG, IL 60196			FAN, CHIEH M	
			ART UNIT	PAPER NUMBER
			2634	

DATE MAILED: 03/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/974,020

Applicant(s)

BLANKENSHIP ET AL.

Examiner

Chieh M Fan

Art Unit

2634

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 October 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6, 8, 9 and 11-25 is/are rejected.
- 7) ☒ Claim(s) 7 and 10 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 October 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>10102001</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

1. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: proper antecedent basis should be provided for the claimed limitation "computer program code" in claims 12-17.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-25 are rejected under 35 U.S.C. 102(e) as being anticipated by Xu (U.S. Patent No. 6,829,313).

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome

either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Regarding claims 1, 12 and 18, Xu teaches a method of processing an information sequence with a decoder, comprising: selecting a window within the information sequence (204 in Fig. 17); calculating a training period for the window (206 in Fig. 17; col. 18, lines 14-22; col. 7, lines 49-51); and initializing at least one recursion of the window based on the calculated training period (208 in Fig. 17; col. 18, lines 23-28). Xu teaches a processor (col. 6, line 53) to perform the method, which reads on the claimed program code in claim 12.

Regarding claim 2, the recursion is a forward recursion (col. 18, line 24).

Regarding claim 3, the recursion is a backward recursion (col. 18, line 24).

Regarding claims 4, 13 and 19, Xu further teaches dividing the information sequence into at least two windows (col. 18, line 10).

Regarding claims 5, 6, 8, 9, 14-17 and 20-23, Xu teaches that the training period is calculated as a function of signal quality (col. 7, line 50) and the signal quality is a function of the window size L (col. 10, lines 13-14) and a function of iteration *iter* (col. 10, lines 13-14).

Regarding claim 11, Xu further teaches selecting an additional window; and computing an additional training period for the additional window based on the training period of the window (col. 18, lines 38-42).

Regarding claim 24, Xu further teaches at least one interleaver (INT in Fig. 3).

Regarding claim 25, Xu further teaches at least one de-interleaver (DEINT in Fig. 3).

Allowable Subject Matter

4. Claims 7 and 10 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.


Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Classon et al. (U.S. Patent No. 6,868,132), Classon et al. (U.S. Patent No. 6,856,657), Eidson et al. (U.S. Patent No. 6,813,743), Xu (U.S. Patent No. 6,829,313), Crozier et al. (U.S. Patent No. 6,510,536).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chieh M Fan whose telephone number is (571) 272-3042. The examiner can normally be reached on Monday-Friday 8:00AM-5:30PM, Alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Chin can be reached on (571) 272-3056. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Chieh M Fan
Primary Examiner
Art Unit 2634

March 18, 2005